Title of Instructional Materials: CPM Educational Program Algebra Connections

Grade Level: Algebra I

Summary of CPM Educational Program Algebra Connections

Overall Rating:	☐ Weak (1-2) ☐ Moderate (2-3) ☒ Strong (3-4)	Important Mathematical Ideas:	☐ Weak (1-2) ☐ Moderate (2-3) ☒ Strong (3-4)
Summary / Justification / Evidence: While the text does not relate all problems and ideas to real-life contexts, it makes an attempt to at least making the problems interesting to students. The book has a balanced approach to mathematical ideas, skills and procedures, and mathematical relationships. The standards that are not addressed specifically in Algebra I the publisher said would be made available online due to it being in other courses or in the supplemental material.		**Summary / Justification / Evidence:** Important mathematical ideas are evident and conceptually developed; however, they do not frequently emerge within the context of real world examples. The text uses investigative problems. Their mathematical ideas are also interconnected. The emphasis on mutliple representations (table, graph, equation, etc.) and moving from the concrete to the abstract allow students to approach problems multiple ways (p. 122 #3-83).	
Skills and Procedures:	☐ Weak (1-2) ☐ Moderate (2-3) ☒ Strong (3-4)	Mathematical Relationships:	☐ Weak (1-2) ☐ Moderate (2-3) ☒ Strong (3-4)
Summary / Justification / Evidence: This text integrates old concepts and ideas with new procedures and skills. In the student problems it builds conceptual understanding by connecting different representations and mathematical ideas (p. 432 #10-78 through #10-82)		**Summary / Justification / Evidence:** This text focuses on building understanding of mathematics as a unified whole. This is evident in that the student problems are not focused on drill-and-skill as much as integrating and showcasing mathematical relationships.	

CPM Educational Program
Algebra Connections

- Overall impressed
- A couple of the standards are hit
  in the Alg 2 curriculum; however
  intro letter said they will give access
  to all through web
- Stats & Prob standards are really only
  hit in Stats resource, which is
  seperate, but can be accessed
  online

Instructional Materials Analysis and Selection

Phase 3: Assessing Content Alignment to the
Common Core State Standards for Mathematics

Traditional Pathway for High School: Algebra I

Instructional Materials Analysis and Selection

Phase 3:

Assessing Content Alignment to the Common Core State Standards for Mathematics

ALGEBRA I — NUMBER AND QUANTITY (N)
The Real Number System (N-RN)

Extend the properties of exponents to rational exponents.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
N-RN.1 Explain how the definition of the meaning of rational exponents follows from extending the properties of integer exponents to those values, allowing for a notation for radicals in terms of rational exponents. *For example, we define $5^{1/3}$ to be the cube root of 5 because we want $(5^{1/3})^3 = 5^{(1/3)3}$ to hold, so $(5^{1/3})^3$ must equal 5.*	**Important Mathematical Ideas** 1———2———3———**(4)** **Skills and Procedures** 1———2———3———**(4)** **Mathematical Relationships** 1———2———3———**(4)** **Summary / Justification / Evidence** Best coverage of this concept I've seen!
Indicate the chapter(s), section(s), and/or page(s) reviewed. 10.4.3	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** **Overall Rating** 1———2———3———**(4)**

ALGEBRA I — NUMBER AND QUANTITY (N)

The Real Number System (N-RN)

Extend the properties of exponents to rational exponents.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
N-RN.2 Rewrite expressions involving radicals and rational exponents using the properties of exponents.	Important Mathematical Ideas 1 2 3 (4) Skills and Procedures 1 2 3 (4) Mathematical Relationships 1 2 3 (4) **Summary / Justification / Evidence** *Best coverage of this concept I've seen!*
Indicate the chapter(s), section(s), and/or page(s) reviewed. 10.4.3	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 3 (4)

ALGEBRA I — NUMBER AND QUANTITY (N)
The Real Number System (N-RN)

Use properties of rational and irrational numbers.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
N-RN.3 Explain why the sum or product of two rational numbers is rational; that the sum of a rational number and an irrational number is irrational; and that the product of a nonzero rational number and an irrational number is irrational. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** SSD: Real #s	Important Mathematical Ideas 1 2 3 (4) Skills and Procedures 1 2 3 (4) Mathematical Relationships 1 2 (3) 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 3 (4)

ALGEBRA I — NUMBER AND QUANTITY (N)

Quantities (N-Q)

Reason quantitatively and use units to solve problems.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
N-Q.1 Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.* Note: Foundation for work with expressions, equations and functions.	Important Mathematical Ideas 1 — 2 — 3 — (4) Skills and Procedures 1 — 2 — 3 — (4) Mathematical Relationships 1 — 2 — (3) — (4)
Indicate the chapter(s), section(s), and/or page(s) reviewed. 1.1.1 1.1.3 6.1.1 – 6.1.3 7.1.2 7.2.2 SSD: Dim Analysis	**Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 — 2 — 3 — (3.5) — 4

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA I — NUMBER AND QUANTITY (N)
Quantities (N-Q)

Reason quantitatively and use units to solve problems.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
N-Q.2 Define appropriate quantities for the purpose of descriptive modeling.* Note: Foundation for work with expressions, equations and functions. Indicate the chapter(s), section(s), and/or page(s) reviewed. 1.1.3 5.2.3	Important Mathematical Ideas 1 2 (3) 4 Skills and Procedures 1 2 (3) 4 Mathematical Relationships 1 (2) 3 4 Summary / Justification / Evidence
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 (3) 4

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA I — NUMBER AND QUANTITY (N)
Quantities (N-Q)

Reason quantitatively and use units to solve problems.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
N-Q.3 Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.* Note: Foundation for work with expressions, equations and functions.	Important Mathematical Ideas 1 2 3 (4) Skills and Procedures 1 2 3 (4) Mathematical Relationships 1 2 (3) 4 **Summary / Justification / Evidence** w/ the supplement covers this topic well... not sure how the other 3 lessons really cover it
Indicate the chapter(s), section(s), and/or page(s) reviewed. 1.1.3 5.2.3 7.3.3 SSD: Sign. Figures	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** No connection to when in real life you would use this concept
	Overall Rating 1 2 3 (4)

ALGEBRA I — ALGEBRA (A)

Seeing Structure in Expressions (A-SSE)

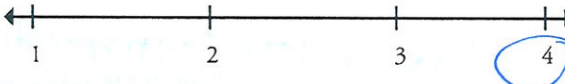| Interpret the structure of expressions.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
A-SSE.1a 1. Interpret expressions that represent a quantity in terms of its context.* a. Interpret parts of an expression, such as terms, factors, and coefficients. Note: Linear, exponential, quadratic. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** *(illegible)* 2.1.1 – 2.1.5 *(illegible)* 4.1.4 *(illegible)* 5.1.3 MN *(illegible)* 8.1.1	**Important Mathematical Ideas** 1 2 ③ 4 *(circled 4)* **Skills and Procedures** 1 2 ③ 4 *(circled 4)* **Mathematical Relationships** 1 2 ③ 4 **Summary / Justification / Evidence** *(illegible handwriting)* **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** *(illegible)* doesn't explain the parts cohesively, nor does it look @ exponential **Overall Rating** 1 2 ③ 4
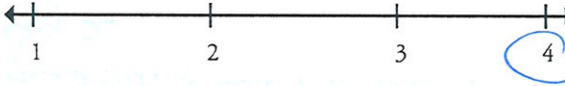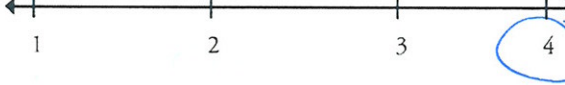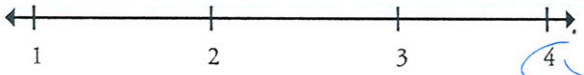
ALGEBRA I — ALGEBRA (A)

Seeing Structure in Expressions (A-SSE)

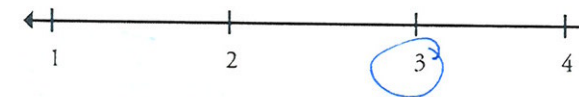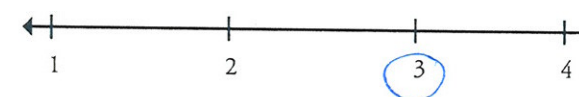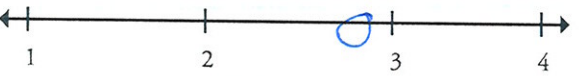| Interpret the structure of expressions.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
A-SSE.1b 1. Interpret expressions that represent a quantity in terms of its context.* b. Interpret complicated expressions by viewing one or more of their parts as a single entity. *For example, interpret $P(1+r)^n$ as the product of P and a factor not depending on P.* Note: Linear, exponential, quadratic. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 4.1.1 11.1.1 11.1.6 12.4.2	Important Mathematical Ideas 1 — 2 — ③ — 4 Skills and Procedures 1 — 2 — ③ — 4 Mathematical Relationships 1 — ② — 3 — 4 Summary / Justification / Evidence
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): *No coverage of literal equations*
	Overall Rating 1 — 2 — ③ — 4

ALGEBRA I — ALGEBRA (A)

Seeing Structure in Expressions (A-SSE)

Interpret the structure of expressions.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
A-SSE.2 Use the structure of an expression to identify ways to rewrite it. *For example, see $x^4 - y^4$ as $(x^2)^2 - (y^2)^2$, thus recognizing it as a difference of squares that can be factored as $(x^2 - y^2)(x^2 + y^2)$.* Note: Linear, exponential, quadratic.	Important Mathematical Ideas 1 — ②(2) — 3 — 4 Skills and Procedures 1 — ~~2~~ — ③ — 4 Mathematical Relationships 1 — ② — 3 — 4 **Summary / Justification / Evidence** Looks at special quadratics but the rest is covered in alg 2.
Indicate the chapter(s), section(s), and/or page(s) reviewed. 12.1.1 A2C: 2.2.1-2.2.3	
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): only looks at quadratics, rest in alg 2
	Overall Rating 1 — 2 ② — 3 — 4

ALGEBRA I — ALGEBRA (A)

Seeing Structure in Expressions (A-SSE)

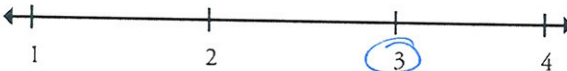| Write expressions in equivalent forms to solve problems.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
A-SSE.3a 3. Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.* a. Factor a quadratic expression to reveal the zeros of the function it defines. Note: Quadratic and exponential.	**Important Mathematical Ideas** 1 2 3 (4) **Skills and Procedures** 1 2 3 (4) **Mathematical Relationships** 1 2 3 (4) **Summary / Justification / Evidence** *Nice build-up in these lessons*
Indicate the chapter(s), section(s), and/or page(s) reviewed. 8.2.3 - 8.2.5	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):**
	Overall Rating 1 2 3 (4)

ALGEBRA I — ALGEBRA (A)

Seeing Structure in Expressions (A-SSE)

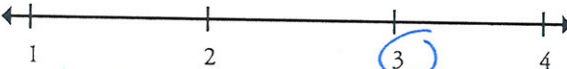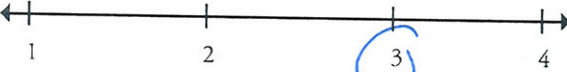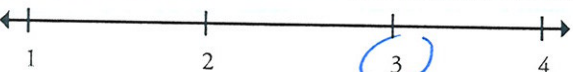| Write expressions in equivalent forms to solve problems.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
A-SSE.3b 3. Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.* 　b. Complete the square in a quadratic expression to reveal the maximum or minimum value of the function it defines. Note: Quadratic and exponential.	Important Mathematical Ideas 1 2 ③ 4 Skills and Procedures 1 2 ③ 4 Mathematical Relationships 1 ② 3 4 **Summary / Justification / Evidence** *Supplement helps; other probs too integrated*
Indicate the chapter(s), section(s), and/or page(s) reviewed. SSD: Optimization Problems using $x = \frac{-b}{2a}$ A2C: 4.3.1, #7-83 #7-116, #7-175, #8-17 Chkpt 14	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** *Alg 2 covers more of max + min*
	Overall Rating 1 2 ③ 4

ALGEBRA I — ALGEBRA (A)

Seeing Structure in Expressions (A-SSE)

Write expressions in equivalent forms to solve problems.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
A-SSE.3c 3. Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.* c. Use the properties of exponents to transform expressions for exponential functions. *For example the expression 1.15^t can be rewritten as $(1.15^{1/12})^{12t} \approx 1.012^{12t}$ to reveal the approximate equivalent monthly interest rate if the annual rate is 15%.* Note: Quadratic and exponential.	Important Mathematical Ideas ①———2———3———4 Skills and Procedures ①———2———3———4 Mathematical Relationships 1———②———3———4 Summary / Justification / Evidence

Indicate the chapter(s), section(s), and/or page(s) reviewed.
 	
A2C: ~~#~~
 	
    #4-21
    #9-76
    #12-68
    #12-97
    #12-141
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	
	Only covered in Alg 2

	Overall Rating ①———2———3———4

ALGEBRA I — ALGEBRA (A)

Arithmetic with Polynomials and Rational Expressions (A-APR)
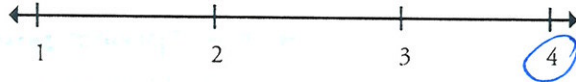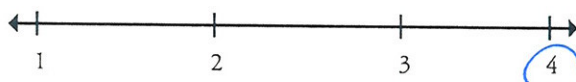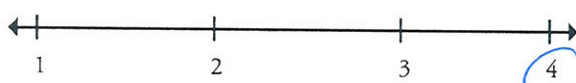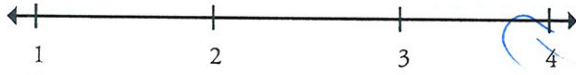
Perform arithmetic operations on polynomials.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
A-APR.1 Understand that polynomials form a system analogous to the integers, namely, they are closed under the operations of addition, subtraction, and multiplication; add, subtract, and multiply polynomials. Note: Linear and quadratic.	Important Mathematical Ideas 1 —— 2 —— ③ —— 4 Skills and Procedures 1 —— 2 —— ③ —— 4 Mathematical Relationships 1 —— 2 —— ③ —— 4 Summary / Justification / Evidence
Indicate the chapter(s), section(s), and/or page(s) reviewed. 2.1.1-2.1.5 2.1.7 5.1.2 5.1.3	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** quadratics not covered much
	Overall Rating 1 —— 2 —— ③ —— 4

ALGEBRA I — ALGEBRA (A)
Creating Equations (A-CED)

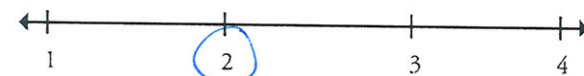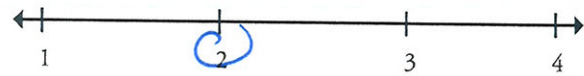| Create equations that describe numbers or relationships.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
A-CED.1 Create equations and inequalities in one variable and use them to solve problems. *Include equations arising from linear and quadratic functions, and simple rational and exponential functions.** Note: Linear, quadratic, and exponential (integer inputs only). **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 3.2.3 9.1.2 12.4.4 3.2.4 #10-40 5.2.2 #10-41 6.1.2 #10-91 8.2.2 #10-109 #8-105 #10-138 #8-115 12.2.1 12.2.2	**Important Mathematical Ideas** — 1 2 3 (4) **Skills and Procedures** — 1 2 3 (4) **Mathematical Relationships** — 1 2 3 (4) **Summary / Justification / Evidence** Well covered — how to + why **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** **Overall Rating** — 1 2 3 (4)

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA I — ALGEBRA (A)
Creating Equations (A-CED)

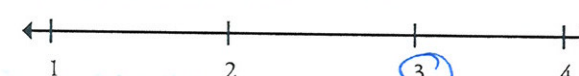| Create equations that describe numbers or relationships.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
A-CED.2 Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.* Note: Linear, quadratic, and exponential (integer inputs only).	Important Mathematical Ideas 1 ② 3 4 Skills and Procedures 1 ② 3 4 Mathematical Relationships 1 ② 3 4 **Summary / Justification / Evidence** Linear covered well
Indicate the chapter(s), section(s), and/or page(s) reviewed. 4.1.1-4.1.7 7.1.1-7.3.4	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Did not create quadratic or exponential
	Overall Rating 1 ② 3 4

ALGEBRA I — ALGEBRA (A)

Creating Equations (A-CED)

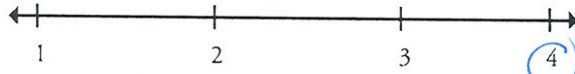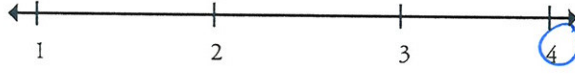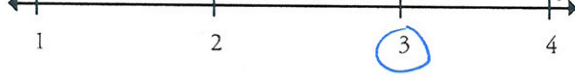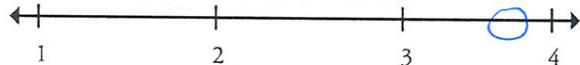| Create equations that describe numbers or relationships.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
A-CED.3 Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or non-viable options in a modeling context. *For example, represent inequalities describing nutritional and cost constraints on combinations of different foods.* * Note: Linear (integer inputs only).	**Important Mathematical Ideas** 1 2 3 ④ **Skills and Procedures** 1 2 3 ④ **Mathematical Relationships** 1 2 3 ④ **Summary / Justification / Evidence** Well built + applicable
Indicate the chapter(s), section(s), and/or page(s) reviewed. 9.3.1 - 9.3.3	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** **Overall Rating** 1 2 3 ④

ALGEBRA I — ALGEBRA (A)
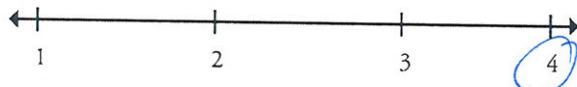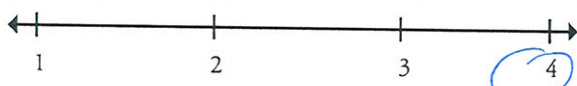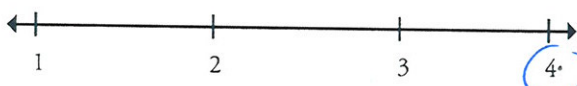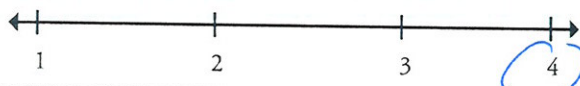
Creating Equations (A-CED)

Create equations that describe numbers or relationships.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
A-CED.4 Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations. *For example, rearrange Ohm's law V = IR to highlight resistance R.** Note: Linear, quadratic, and exponential (integer inputs only). Indicate the chapter(s), section(s), and/or page(s) reviewed. 5.1.5 ✔ 5.1.6 #11-49	Important Mathematical Ideas 1 ②(circled) 3 4 Skills and Procedures 1 2 ③(circled) 4 Mathematical Relationships 1 ②(circled) 3 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): Only Linear No literal eqs w/ more than 2 variables
	Overall Rating 1 2 ◯(circled ~2.3) 3 4

ALGEBRA I — ALGEBRA (A)

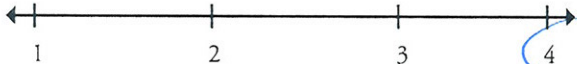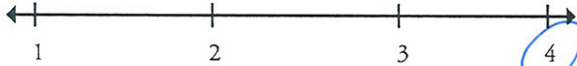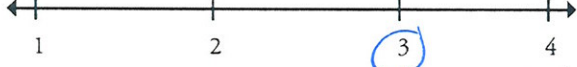### Reasoning with Equations and Inequalities (A-REI)
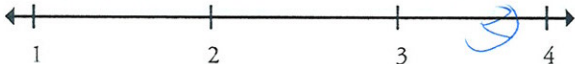
Understand solving equations as a process of reasoning and explain the reasoning.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
A-REI.1 Explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. Construct a viable argument to justify a solution method. Note: Master linear; learn as general principle. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** SSD: Justifications for Solving Eqs	Important Mathematical Ideas 1 2 3 ④ Skills and Procedures 1 2 3 ④ Mathematical Relationships 1 2 ③ 4 **Summary / Justification / Evidence** Good examples + practice
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 3 4 (circled between 3 and 4)

ALGEBRA I — ALGEBRA (A)

Reasoning with Equations and Inequalities (A-REI)

Solve equations and inequalities in one variable.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
A-REI.3 Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters. Note: Linear inequalities; literal that are linear in the variables being solved for; quadratics with real solutions. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 2.1.8 - 2.1.9 3.2.1 - 3.2.4 5.1.5 5.1.6 9.1.1 9.1.2	Important Mathematical Ideas 1 2 3 **(4)** Skills and Procedures 1 2 3 **(4)** Mathematical Relationships 1 2 3 **(4)** **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 3 **(4)**

ALGEBRA I — ALGEBRA (A)

Reasoning with Equations and Inequalities (A-REI)

Solve equations and inequalities in one variable.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
A-REI.4a 4. Solve quadratic equations in one variable. a. Use the method of completing the square to transform any quadratic equation in x into an equation of the form $(x - p)^2 = q$ that has the same solutions. Derive the quadratic formula from this form. Note: Linear inequalities; literal that are linear in the variables being solved for; quadratics with real solutions. Indicate the chapter(s), section(s), and/or page(s) reviewed. 10.3.1 10.3.2 12.3.1	Important Mathematical Ideas 1 2 3 **(4)** Skills and Procedures 1 2 3 **(4)** Mathematical Relationships 1 2 **(3)** 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 3 **(4)**

ALGEBRA I — ALGEBRA (A)

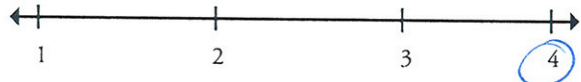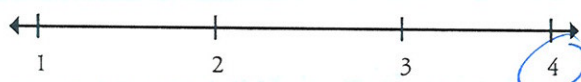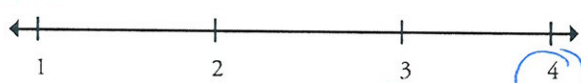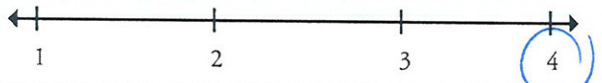### Reasoning with Equations and Inequalities (A-REI)

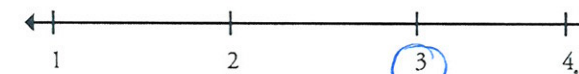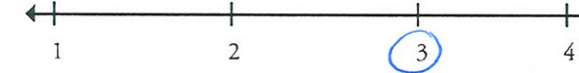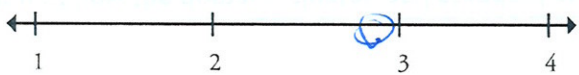| Solve equations and inequalities in one variable.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
A-REI.4b 4. Solve quadratic equations in one variable. b. Solve quadratic equations by inspection (e.g., for $x^2 = 49$), taking square roots, completing the square, the quadratic formula and factoring, as appropriate to the initial form of the equation. Recognize when the quadratic formula gives complex solutions and write them as $a \pm bi$ for real numbers a and b. Note: Linear inequalities; literal that are linear in the variables being solved for; quadratics with real solutions.	Important Mathematical Ideas 1 2 3 **(4)** Skills and Procedures 1 2 3 **(4)** Mathematical Relationships 1 2 3 **(4)** Summary / Justification / Evidence *Good build - up*
Indicate the chapter(s), section(s), and/or page(s) reviewed. 8.2.3 8.2.4 8.3.1 - 8.3.3 10.3.1 10.3.2	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 3 **(4)**

ALGEBRA I — ALGEBRA (A)
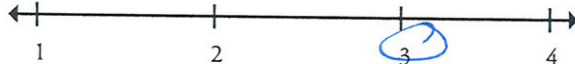
Reasoning with Equations and Inequalities (A-REI)
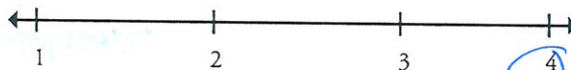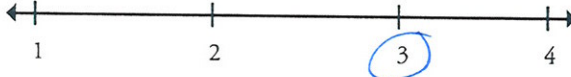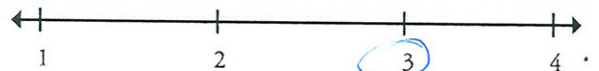
Solve systems of equations.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
A-REI.5 Prove that, given a system of two equations in two variables, replacing one equation by the sum of that equation and a multiple of the other produces a system with the same solutions. Note: Linear-linear and linear-quadratic.	**Important Mathematical Ideas** 1 2 ③ 4. **Skills and Procedures** 1 ② 3 4 **Mathematical Relationships** 1 2 ③ 4 **Summary / Justification / Evidence** *Just one example... would like to see more*
Indicate the chapter(s), section(s), and/or page(s) reviewed. *SSD: Justifications for Solv. Eqs.*	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):**
	Overall Rating 1 2 ③ 4

ALGEBRA I — ALGEBRA (A)
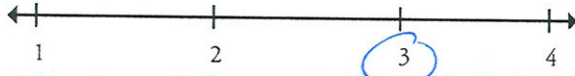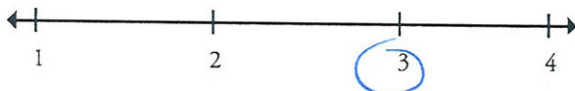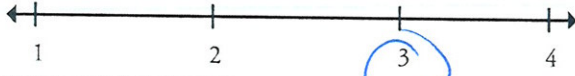
Reasoning with Equations and Inequalities (A-REI)

Solve systems of equations.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
A-REI.6 Solve systems of linear equations exactly and approximately (e.g., with graphs), focusing on pairs of linear equations in two variables. Note: Linear-linear and linear-quadratic. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 4.2.1-4.2.3 6.2.1 - 6.2.5	Important Mathematical Ideas 1 2 ③ 4 Skills and Procedures 1 2 ③ 4 Mathematical Relationships 1 2 ③ 4 Summary / Justification / Evidence
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): no linear - quadratic
	Overall Rating 1 2 ③ 4

ALGEBRA I — ALGEBRA (A)

Reasoning with Equations and Inequalities (A-REI)

Solve systems of equations.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
A-REI.7 Solve a simple system consisting of a linear equation and a quadratic equation in two variables algebraically and graphically. *For example, find the points of intersection between the line y = −3x and the circle x² + y² = 3.* Note: Linear-linear and linear-quadratic.	Important Mathematical Ideas 1 —— 2 —— 3 —— **(4)** Skills and Procedures 1 —— **(2)** —— 3 —— 4 Mathematical Relationships 1 —— 2 —— **(3)** —— 4 **Summary / Justification / Evidence** *no big examples; just problems to work through*
Indicate the chapter(s), section(s), and/or page(s) reviewed. #10-149 11.2.1	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):**
	Overall Rating 1 —— 2 —— **(3)** —— 4 .

ALGEBRA I — ALGEBRA (A)

Reasoning with Equations and Inequalities (A-REI)

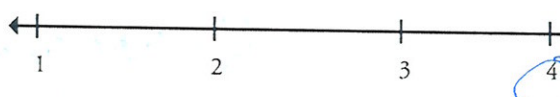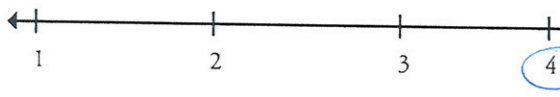| Represent and solve equations and inequalities graphically.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
A-REI.10 Understand that the graph of an equation in two variables is the set of all its solutions plotted in the coordinate plane, often forming a curve (which could be a line). Note: Linear and exponential; learn as general principle. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** ＃3-44 3.1.6 3.1.7 3.21 MN ＃6-50	Important Mathematical Ideas 1 2 3 (4) Skills and Procedures 1 2 3 (4) Mathematical Relationships 1 2 (3) 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): not exponential
	Overall Rating 1 2 3 (4)

ALGEBRA I — ALGEBRA (A)

Reasoning with Equations and Inequalities (A-REI)
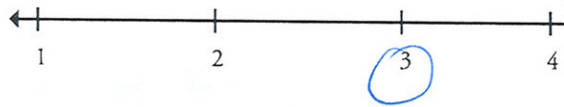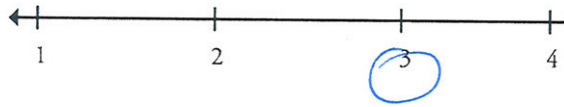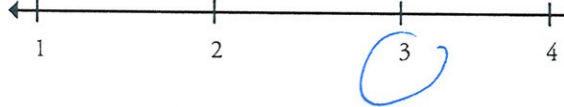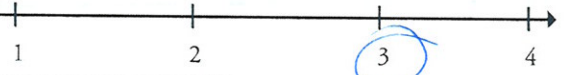
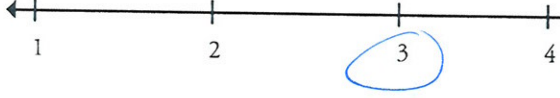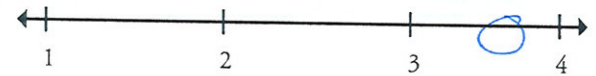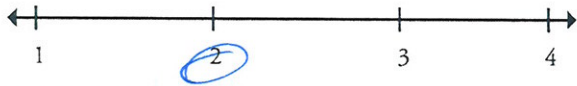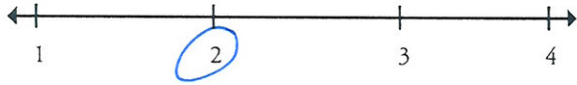| Represent and solve equations and inequalities graphically.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
A-REI.11 Explain why the x-coordinates of the points where the graphs of the equations $y = f(x)$ and $y = g(x)$ intersect are the solutions of the equation $f(x) = g(x)$; find the solutions approximately, e.g., using technology to graph the functions, make tables of values, or find successive approximations. Include cases where $f(x)$ and/or $g(x)$ are linear, polynomial, rational, absolute value, exponential, and logarithmic functions.* Note: Linear and exponential; learn as general principle. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 4.2.2 - 4.2.4	Important Mathematical Ideas 1 ② 3 4 Skills and Procedures 1 ② 3 4 Mathematical Relationships 1 2 ③ 4 Summary / Justification / Evidence
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): no poly, rat, abs vl, exp, or log
	Overall Rating 1 2 ② 3 4
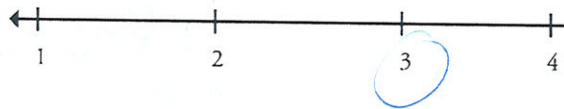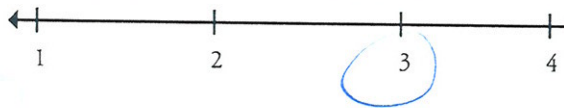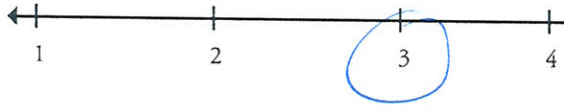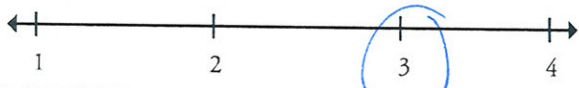
ALGEBRA I — ALGEBRA (A)

Reasoning with Equations and Inequalities (A-REI)

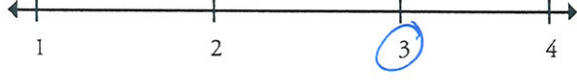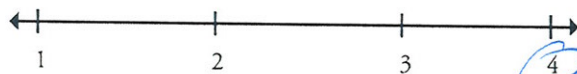| Represent and solve equations and inequalities graphically.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
A-REI.12 Graph the solutions to a linear inequality in two variables as a half-plane (excluding the boundary in the case of a strict inequality), and graph the solution set to a system of linear inequalities in two variables as the intersection of the corresponding half-planes. Note: Linear and exponential; learn as general principle. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 9.2.1 9.2.2 9.3.1 9.3.2	Important Mathematical Ideas $\leftarrow$	1 2 3 (4) Skills and Procedures $\leftarrow$	1 2 3 (4) Mathematical Relationships $\leftarrow$	1 2 3 (4) **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating $\leftarrow$	1 2 3 (4)

ALGEBRA I — FUNCTIONS (F)

Interpreting Functions (F-IF)

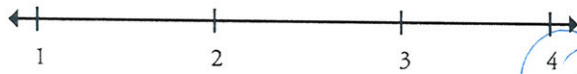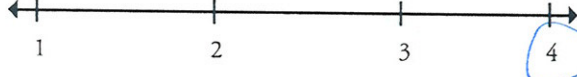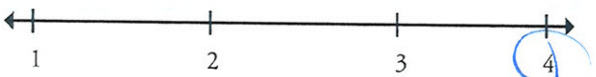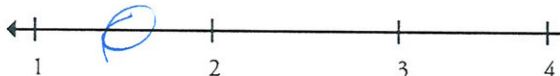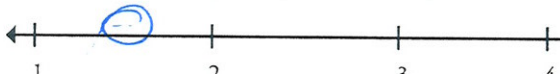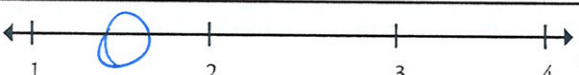| Understand the concept of a function and use function notation.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
F-IF.1 Understand that a function from one set (called the domain) to another set (called the range) assigns to each element of the domain exactly one element of the range. If f is a function and x is an element of its domain, then $f(x)$ denotes the output of f corresponding to the input x. The graph of f is the graph of the equation $y = f(x)$. Note: Learn as general principle; focus on linear and exponential and on arithmetic and geometric sequences. Indicate the chapter(s), section(s), and/or page(s) reviewed. 11.1.1 – 11.1.3	Important Mathematical Ideas 1 2 ③ 4 Skills and Procedures 1 2 ③ 4 Mathematical Relationships 1 2 ③ 4 Summary / Justification / Evidence
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 ③ 4

ALGEBRA I — FUNCTIONS (F)

Interpreting Functions (F-IF)
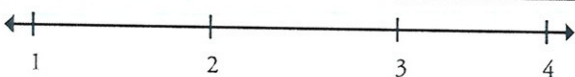
Understand the concept of a function and use function notation.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
F-IF.2 Use function notation, evaluate functions for inputs in their domains, and interpret statements that use function notation in terms of a context. Note: Learn as general principle; focus on linear and exponential and on arithmetic and geometric sequences. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 11.1.2 11.1.3	Important Mathematical Ideas 1 —— 2 —— ③ —— 4 Skills and Procedures 1 —— 2 —— ③ —— 4 Mathematical Relationships 1 —— 2 —— ③ —— 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 —— 2 —— ③ —— 4

ALGEBRA I — FUNCTIONS (F)

Interpreting Functions (F-IF)
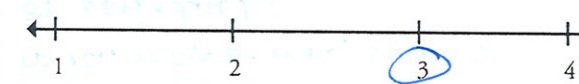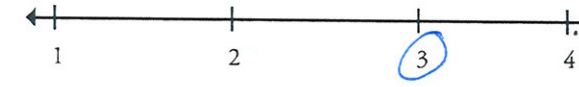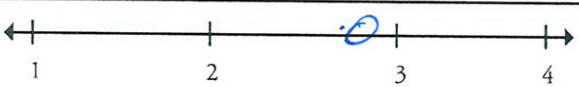
Understand the concept of a function and use function notation.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
F-IF.3 Recognize that sequences are functions, sometimes defined recursively, whose domain is a subset of the integers. *For example, the Fibonacci sequence is defined recursively by f(0) = f(1) = 1, f(n+1) = f(n) + f(n-1) for n ≥ 1.* Note: Learn as general principle; focus on linear and exponential and on arithmetic and geometric sequences.	Important Mathematical Ideas ← 1 ② 2 3 4 → Skills and Procedures ← 1 ② 2 3 4 → Mathematical Relationships ← 1 ② 2 3 4 → **Summary / Justification / Evidence** *not introduced*
Indicate the chapter(s), section(s), and/or page(s) reviewed. A2C : 2.1.1 - 2.1.8 #8-72	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** *Not covered in alg 1*
	Overall Rating ← 1 ① 2 3 4 → .
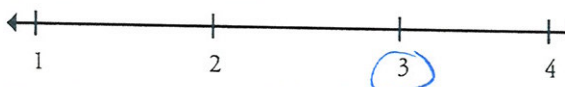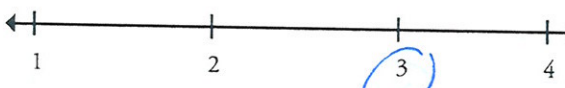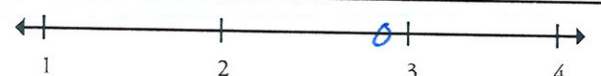
ALGEBRA I — FUNCTIONS (F)

Interpreting Functions (F-IF)

Interpret functions that arise in applications in terms of the context.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
F-IF.4 For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. *Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity.** Note: Linear, exponential, and quadratic.	Important Mathematical Ideas 1 ② 3 4 Skills and Procedures 1 ② 3 4 Mathematical Relationships 1 ② 3 4 **Summary / Justification / Evidence**
Indicate the chapter(s), section(s), and/or page(s) reviewed. 11.1.1 11.1.5 11.1.6	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Doesn't use voc; no rel. max or min, symm, end behavior or periodicity
	Overall Rating 1 2 3 4

ALGEBRA I — FUNCTIONS (F)

Interpreting Functions (F-IF)

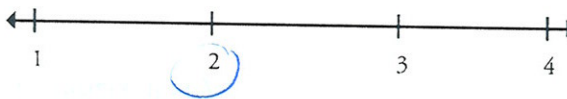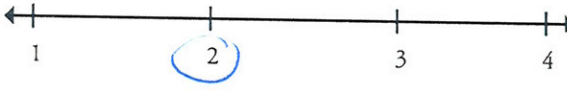| Interpret functions that arise in applications in terms of the context.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
F-IF.5 Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes. *For example, if the function h(n) gives the number of person-hours it takes to assemble n engines in a factory, then the positive integers would be an appropriate domain for the function.** Note: Linear, exponential, and quadratic.	Important Mathematical Ideas 1———2———③———4
	Skills and Procedures 1———②———3———4
	Mathematical Relationships 1———2———③———4
	Summary / Justification / Evidence
Indicate the chapter(s), section(s), and/or page(s) reviewed. 11.1.1 11.1.5	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1———2———③———4

ALGEBRA I — FUNCTIONS (F)

Interpreting Functions (F-IF)

Interpret functions that arise in applications in terms of the context.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
F-IF.6 Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph.* Note: Linear, exponential, and quadratic. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 7.2.1 - 7.2.3 PCT : 9.1.1 - 9.2.2 for non-lin. func.	Important Mathematical Ideas 1 — ②2 — 3 — 4 Skills and Procedures 1 — 2 — ③3 — 4 Mathematical Relationships 1 — 2 — ③3 — 4 **Summary / Justification / Evidence** Only linear
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): no exp. or quad until pre-calc
	Overall Rating 1 — 2 — ⊘3 — 4

ALGEBRA I — FUNCTIONS (F)

Interpreting Functions (F-IF)

Analyze functions using different representations.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
F-IF.7a 7. Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases.* a. Graph linear and quadratic functions and show intercepts, maxima, and minima. Note: Linear, exponential, quadratic, absolute value, step, piecewise-defined.	Important Mathematical Ideas 1 —— 2 —— ③ —— 4 Skills and Procedures 1 —— 2 —— ③ —— 4 Mathematical Relationships 1 —— 2 —— ③ —— 4 **Summary / Justification / Evidence** Max & Min lacking some instruction
Indicate the chapter(s), section(s), and/or page(s) reviewed. 3.1.4 - 3.1.6 8.2.1 - 8.2.3 3.2.1 mN 8.2.5 4.1.4 4.1.6 7.1.5 7.2.3	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** . **Overall Rating** 1 —— 2 —— ③ —— 4

ALGEBRA I — FUNCTIONS (F)

Interpreting Functions (F-IF)

Analyze functions using different representations.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
F-IF.7b 7. Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases.* b. Graph square root, cube root, and piecewise-defined functions, including step functions and absolute value functions. Note: Linear, exponential, quadratic, absolute value, step, piecewise-defined.	Important Mathematical Ideas 1 ②(circled) 3 4 Skills and Procedures 1 ②(circled) 3 4 Mathematical Relationships 1 ②(circled) 3 4 **Summary / Justification / Evidence** *Not a very large emphasis on graphing*
Indicate the chapter(s), section(s), and/or page(s) reviewed. 9.2.3 11.1.1 #11-70 A2C: #10-40 and #10-82 PCT: 2.1.1	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** *only abs value + square root until Alg 2 + Precalc*
	Overall Rating 1 ②(circled) 3 4
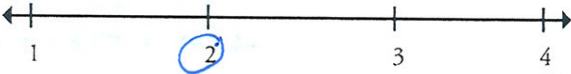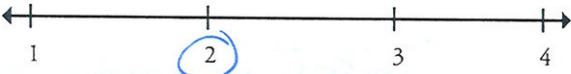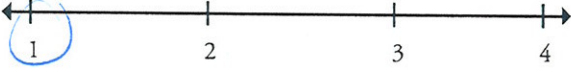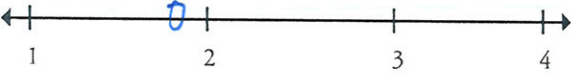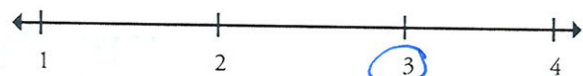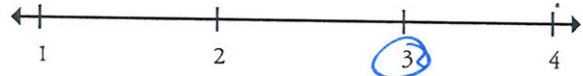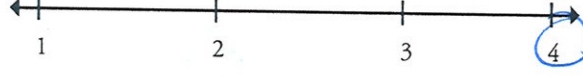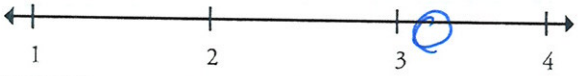
ALGEBRA I — FUNCTIONS (F)

Interpreting Functions (F-IF)

Analyze functions using different representations.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
F-IF.7e 7. Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases.* e. Graph exponential and logarithmic functions, showing intercepts and end behavior, and trigonometric functions, showing period, midline, and amplitude. Note: Linear, exponential, quadratic, absolute value, step, piecewise-defined. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** SSD: Exp. Growth + Decay	Important Mathematical Ideas 1 ②(2) 3 4 Skills and Procedures 1 ②(2) 3 4 Mathematical Relationships ①(1) 2 3 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): No log no midline no trig fnc no ampl and showing period
	Overall Rating 1 ①(1) 2 3 4
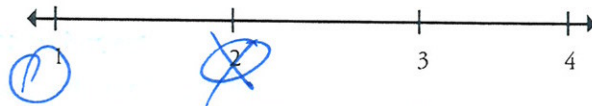
ALGEBRA I — FUNCTIONS (F)

Interpreting Functions (F-IF)

Analyze functions using different representations.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
F-IF.8a 8. Write a function defined by an expression in different but equivalent forms to reveal and explain different properties of the function. a. Use the process of factoring and completing the square in a quadratic function to show zeros, extreme values, and symmetry of the graph, and interpret these in terms of a context. Note: Linear, exponential, quadratic, absolute value, step, piecewise-defined. Indicate the chapter(s), section(s), and/or page(s) reviewed. **8.2.2 - 8.2.5**	Important Mathematical Ideas 1 2 **(3)** 4 Skills and Procedures 1 2 **(3)** 4 Mathematical Relationships 1 2 3 **(4)** Summary / Justification / Evidence
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): No symmetry discussion
	Overall Rating 1 2 **3** 4
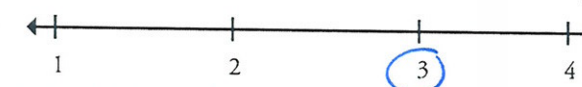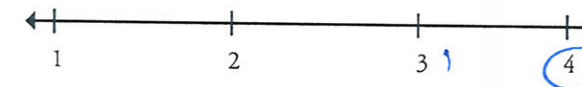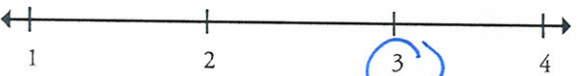
ALGEBRA I — FUNCTIONS (F)

Interpreting Functions (F-IF)

Analyze functions using different representations.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
F-IF.8b 8. Write a function defined by an expression in different but equivalent forms to reveal and explain different properties of the function. b. Use the properties of exponents to interpret expressions for exponential functions. *For example, identify percent rate of change in functions such as $y = (1.02)^t$, $y = (0.97)^t$, $y = (1.01)^{12t}$, $y = (1.2)^{t/10}$, and classify them as representing exponential growth or decay.* Note: Linear, exponential, quadratic, absolute value, step, piecewise-defined.	Important Mathematical Ideas ①————②————3————4 Skills and Procedures ①————②————3————4 Mathematical Relationships ①————②————3————4 Summary / Justification / Evidence
Indicate the chapter(s), section(s), and/or page(s) reviewed. 12.4.3 A2C #1 136 #1-7 #2-107 #2-142 7.2.3, 7.2.4 A2C: 2.1.6 2.1.7 mN 3.1.2-3.1.6 SSD: Growth/Decay Exp.	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Not in AI curric.
	Overall Rating ①————②————3————4

ALGEBRA I — FUNCTIONS (F)
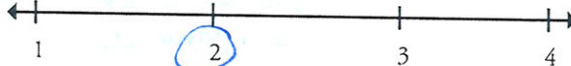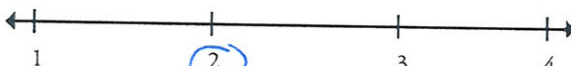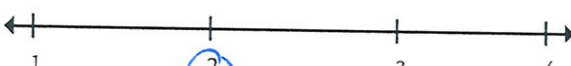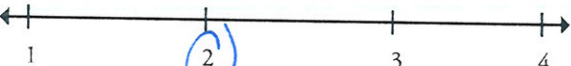
Interpreting Functions (F-IF)

Analyze functions using different representations.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
F-IF.9 Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). *For example, given a graph of one quadratic function and an algebraic expression for another, say which has the larger maximum.* Note: Linear, exponential, quadratic, absolute value, step, piecewise-defined. Indicate the chapter(s), section(s), and/or page(s) reviewed. 4.1.5 4.1.7	**Important Mathematical Ideas** 1——2——③——4 **Skills and Procedures** 1——2——3——④ **Mathematical Relationships** 1——②——3——4 **Summary / Justification / Evidence** Only linear **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Only linear **Overall Rating** 1——2——③——4
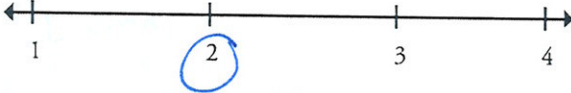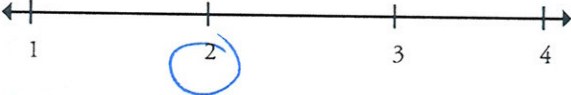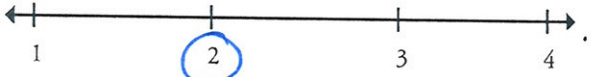
ALGEBRA I — FUNCTIONS (F)

Building Functions (F-BF)

Build a function that models a relationship between two quantities.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
F-BF.1a 1. Write a function that describes a relationship between two quantities.* a. Determine an explicit expression, a recursive process, or steps for calculation from a context. Note: Linear, exponential, and quadratic.	**Important Mathematical Ideas** 1———2———③———4 **Skills and Procedures** 1———2———3———④ **Mathematical Relationships** 1———2———3———④ **Summary / Justification / Evidence**
Indicate the chapter(s), section(s), and/or page(s) reviewed. 4.1.1 - 4.1.2 7.1.1 - 7.3.4 12.4.2	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):**
	Overall Rating 1———2———3———④

ALGEBRA I — FUNCTIONS (F)

Building Functions (F-BF)
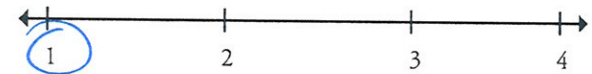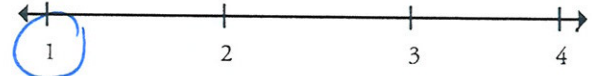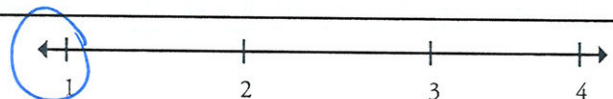
Build a function that models a relationship between two quantities.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
F-BF.1b 1. Write a function that describes a relationship between two quantities.* b. Combine standard function types using arithmetic operations. *For example, build a function that models the temperature of a cooling body by adding a constant function to a decaying exponential, and relate these functions to the model.* Note: Linear, exponential, and quadratic.	Important Mathematical Ideas 1 ②(circled) 3 4 Skills and Procedures 1 ②(circled) 3 4 Mathematical Relationships 1 ②(circled) 3 4 Summary / Justification / Evidence

Indicate the chapter(s), section(s), and/or page(s) reviewed.
 	
12.4.3
 	
A2C : #1-36
    #1-7D
    #2-102
    #2-142
7.2.3 - 7.2.4
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	
	Not covered where combining really
	
	Overall Rating
	
	 1 ②(circled) 3 4

ALGEBRA I — FUNCTIONS (F)

Building Functions (F-BF)

Build a function that models a relationship between two quantities.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
F-BF.2 Write arithmetic and geometric sequences both recursively and with an explicit formula, use them to model situations, and translate between the two forms.* Note: Linear, exponential, and quadratic.	Important Mathematical Ideas (1) 2 3 4 Skills and Procedures (1) 2 3 4 Mathematical Relationships (1) 2 3 4 Summary / Justification / Evidence
Indicate the chapter(s), section(s), and/or page(s) reviewed. A2C: 2.1.1 - 2.1.5 2.1.8 SSD: Sequences	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Not covered in Alg I curr Overall Rating (1) 2 3 4

ALGEBRA I — FUNCTIONS (F)

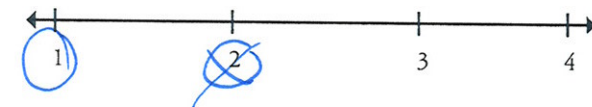## Building Functions (F-BF)

Build new functions from existing functions.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
F-BF.3 Identify the effect on the graph of replacing $f(x)$ by $f(x) + k$, $k\,f(x)$, $f(kx)$, and $f(x + k)$ for specific values of k (both positive and negative); find the value of k given the graphs. Experiment with cases and illustrate an explanation of the effects on the graph using technology. *Include recognizing even and odd functions from their graphs and algebraic expressions for them.* Note: Linear, exponential, quadratic, and absolute value. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 11.1.1 11.1.6	**Important Mathematical Ideas** 1 —— 2 —— ③ —— 4 **Skills and Procedures** 1 —— 2 —— 3 —— ④ **Mathematical Relationships** 1 —— ② —— 3 —— 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 —— 2 —— ③ —— 4

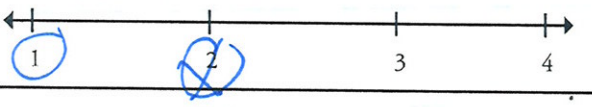## ALGEBRA I — FUNCTIONS (F)

Building Functions (F-BF)

Build new functions from existing functions.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
F-BF.4a 4. Find inverse functions. a. Solve an equation of the form $f(x) = c$ for a simple function f that has an inverse and write an expression for the inverse. *For example, $f(x) = 2 x^3$ or $f(x) = (x+1)/(x-1)$ for $x \neq 1$.* Note: Linear only. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** A2C: 6.1.1 - 6.1.3	Important Mathematical Ideas ①———2———3———4 Skills and Procedures ①———2———3———4 Mathematical Relationships ①———2———3———4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): Not in alg 1 curriculum
	Overall Rating ①———2———3———4
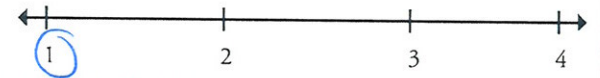
Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA I — FUNCTIONS (F)

Linear, Quadratic, and Exponential Models (F-LE)

Construct and compare linear, quadratic, and exponential models and solve problems.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
F-LE.1a 1. Distinguish between situations that can be modeled with linear functions and with exponential functions. a. Prove that linear functions grow by equal differences over equal intervals, and that exponential functions grow by equal factors over equal intervals.*	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence**
Indicate the chapter(s), section(s), and/or page(s) reviewed. A2C: 2.1.4, 3.1.3	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** – Observe, not prove – only in AZ curric. --- Overall Rating (1) 2 3 4

ALGEBRA I — FUNCTIONS (F)

Linear, Quadratic, and Exponential Models (F-LE)

Construct and compare linear, quadratic, and exponential models and solve problems.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.

F-LE.1b
 	
1. Distinguish between situations that can be modeled with linear functions and with exponential functions.
 	
    b. Recognize situations in which one quantity changes at a constant rate per unit interval relative to another.*
 	
Indicate the chapter(s), section(s), and/or page(s) reviewed.
 	
4.1.4
 	
A2C: 1.2.3, 2.1.4
     SSD: Lin, Quad, Exp. Tables
	Important Mathematical Ideas 1 ② 3 4
	
	Skills and Procedures 1 2 ③ 4
	
	Mathematical Relationships 1 ② 3 4
	
	Summary / Justification / Evidence

	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 ② 3 4

ALGEBRA I — FUNCTIONS (F)

Linear, Quadratic, and Exponential Models (F-LE)

Construct and compare linear, quadratic, and exponential models and solve problems.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
F-LE.1c 1. Distinguish between situations that can be modeled with linear functions and with exponential functions. c. Recognize situations in which a quantity grows or decays by a constant percent rate per unit interval relative to another.*	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 *(1 circled for all three rows)* **Summary / Justification / Evidence**
Indicate the chapter(s), section(s), and/or page(s) reviewed. A2C: 2.1.4, 2.1.6, 3.1.2–3.1.6 JSD: Lin, Quad, Exp Tables	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Only in A2 curr. **Overall Rating** ① 2 3 4

ALGEBRA I — FUNCTIONS (F)

Linear, Quadratic, and Exponential Models (F-LE)

Construct and compare linear, quadratic, and exponential models and solve problems.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
F-LE.2 Construct linear and exponential functions, including arithmetic and geometric sequences, given a graph, a description of a relationship, or two input-output pairs (include reading these from a table).*	Important Mathematical Ideas 1 — 2 — ③ — 4 Skills and Procedures 1 — 2 — ③ — 4 Mathematical Relationships 1 — 2 — 3 — ④ Summary / Justification / Evidence
Indicate the chapter(s), section(s), and/or page(s) reviewed. 4.1.2 - 4.1.5 4.1.7 A2C: 2.1.1 - 2.1.8 SSD: Exp. Growth/Decay	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** No exponential
	Overall Rating 1 — 2 — ③ — 4
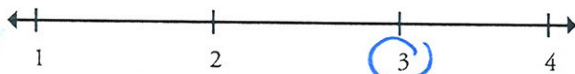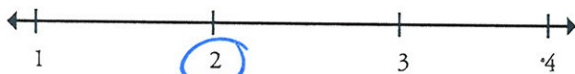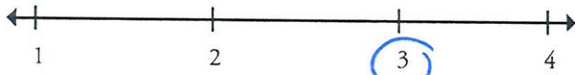
ALGEBRA I — FUNCTIONS (F)

Linear, Quadratic, and Exponential Models (F-LE)

Construct and compare linear, quadratic, and exponential models and solve problems.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
F-LE.3 Observe using graphs and tables that a quantity increasing exponentially eventually exceeds a quantity increasing linearly, quadratically, or (more generally) as a polynomial function.*	Important Mathematical Ideas 1—2—3—4 Skills and Procedures 1—2—3—4 Mathematical Relationships 1—2—3—4 Summary / Justification / Evidence
Indicate the chapter(s), section(s), and/or page(s) reviewed. A2C: 2.1.4, 3.1.3	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): Only in A2 curr. Overall Rating 1—2—3—4
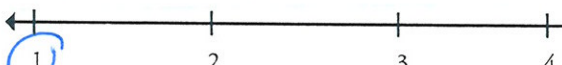
ALGEBRA I — FUNCTIONS (F)

Linear, Quadratic, and Exponential Models (F-LE)

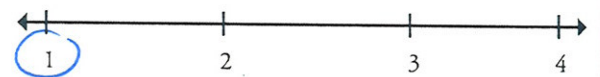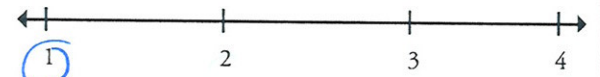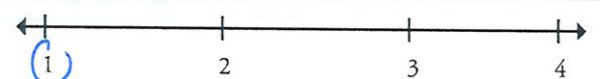| Interpret expressions for functions in terms of the situation they model.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
F-LE.5 Interpret the parameters in a linear or exponential function in terms of a context.* Note: Linear and exponential of form $f(x) = b^x + k$.	Important Mathematical Ideas 1 2 ③ 4 Skills and Procedures 1 ② 3 ·4 Mathematical Relationships 1 2 ③ 4 Summary / Justification / Evidence
Indicate the chapter(s), section(s), and/or page(s) reviewed. 4.1.2 - 4.1.5 A2C: 2.1.6, 2.1.7 MN 3.1.6, 7.2.3, 7.2.4	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** – only linear – exponential in A2 curr
	Overall Rating 1 2 ② 3 4
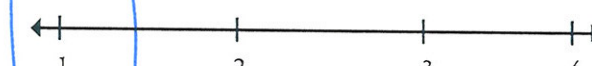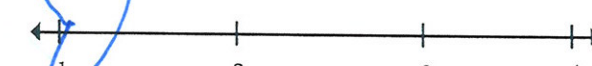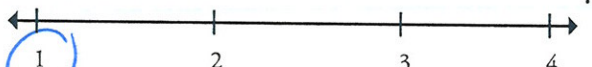
ALGEBRA I — STATISTICS AND PROBABILITY (S)

Interpreting Categorical and Quantitative Data (S-ID)

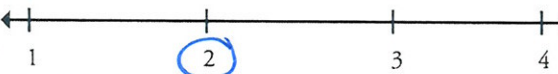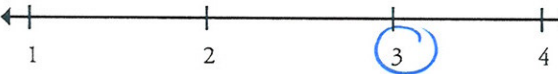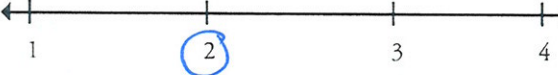| Summarize, represent, and interpret data on a single count or measurement variable.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
S-ID.1 Represent data with plots on the real number line (dot plots, histograms, and box plots). Indicate the chapter(s), section(s), and/or page(s) reviewed. See: 5.1.2, 5.1.3	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 *(Rating of 1 circled for all three scales)* **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): In statistics resource only
	Overall Rating (1) 2 3 4

ALGEBRA I — STATISTICS AND PROBABILITY (S)

Interpreting Categorical and Quantitative Data (S-ID)

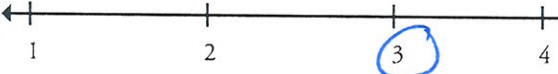| Summarize, represent, and interpret data on a single count or measurement variable.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
S-ID.2 Use statistics appropriate to the shape of the data distribution to compare center (median, mean) and spread (interquartile range, standard deviation) of two or more different data sets. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** SPR: 5.2.1	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 Summary / Justification / Evidence
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): SPR: resource only
	Overall Rating 1 2 3 4

ALGEBRA I — STATISTICS AND PROBABILITY (S)

Interpreting Categorical and Quantitative Data (S-ID)

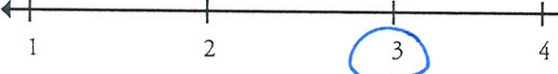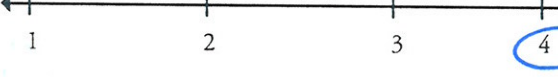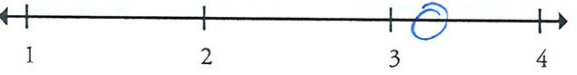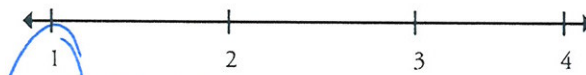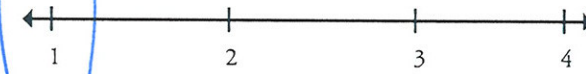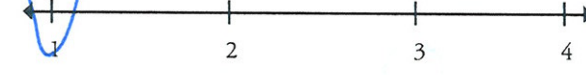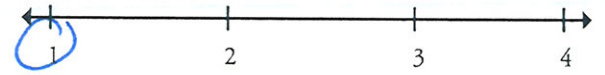| Summarize, represent, and interpret data on a single count or measurement variable.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
S-ID.3 Interpret differences in shape, center, and spread in the context of the data sets, accounting for possible effects of extreme data points (outliers). **Indicate the chapter(s), section(s), and/or page(s) reviewed.** SPR : 5.1.1 & 5.2.1	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 *(Important Mathematical Ideas, Skills and Procedures, and Mathematical Relationships all circled at 1)* **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): – In Statistics resource only
	Overall Rating (1) 2 3 4

ALGEBRA I — STATISTICS AND PROBABILITY (S)

Interpreting Categorical and Quantitative Data (S-ID)

Summarize, represent, and interpret data on two categorical and quantitative variables.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
S-ID.5 Summarize categorical data for two categories in two-way frequency tables. Interpret relative frequencies in the context of the data (including joint, marginal, and conditional relative frequencies). Recognize possible associations and trends in the data. Note: Linear focus; discuss general principle. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** SPR: 5.2.2	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 *(ratings 1 circled across all three rows)* Summary / Justification / Evidence
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): In statistics resource only
	Overall Rating (1) 2 3 4

ALGEBRA I — STATISTICS AND PROBABILITY (S)

Interpreting Categorical and Quantitative Data (S-ID)

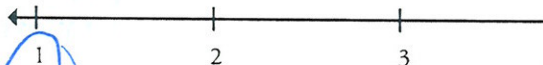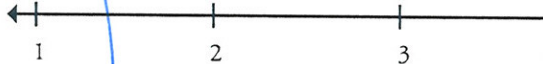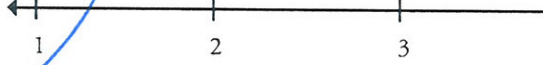| Summarize, represent, and interpret data on two categorical and quantitative variables.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
S-ID.6a 6. Represent data on two quantitative variables on a scatter plot, and describe how the variables are related. a. Fit a function to the data; use functions fitted to data to solve problems in the context of the data. *Use given functions or choose a function suggested by the context. Emphasize linear, quadratic, and exponential models.* Note: Linear focus; discuss general principle. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 7.1.2, 7.3.3	Important Mathematical Ideas 1 2 **③** 4 Skills and Procedures 1 2 **③** 4 Mathematical Relationships 1 2 3 **④** **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 **③** 4

ALGEBRA I — STATISTICS AND PROBABILITY (S)

Interpreting Categorical and Quantitative Data (S-ID)

Summarize, represent, and interpret data on two categorical and quantitative variables.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
S-ID.6b 6. Represent data on two quantitative variables on a scatter plot, and describe how the variables are related. b. Informally assess the fit of a function by plotting and analyzing residuals. Note: Linear focus; discuss general principle.	Important Mathematical Ideas 1 —— 2 —— 3 —— 4 Skills and Procedures 1 —— 2 —— 3 —— 4 Mathematical Relationships 1 —— 2 —— 3 —— 4 *(ratings circled at 1 for all three)* **Summary / Justification / Evidence**
Indicate the chapter(s), section(s), and/or page(s) reviewed. SPR: 7.1.2, 7.1.3, 7.2.1, 7.2.3, 7.2.4	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** In statistics resource only
	Overall Rating 1 —— 2 —— 3 —— 4 *(circled at 1)*

ALGEBRA I — STATISTICS AND PROBABILITY (S)
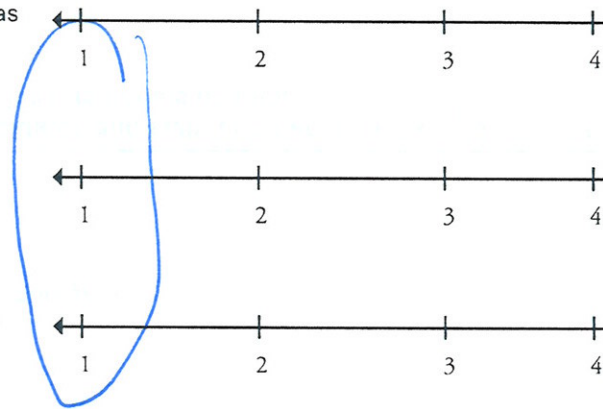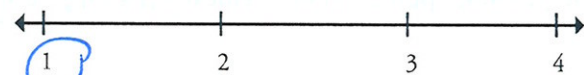
Interpreting Categorical and Quantitative Data (S-ID)

Summarize, represent, and interpret data on two categorical and quantitative variables.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
S-ID.6c 6. Represent data on two quantitative variables on a scatter plot, and describe how the variables are related. c. Fit a linear function for a scatter plot that suggests a linear association. Note: Linear focus; discuss general principle. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 7.1.2, 7.3.3	**Important Mathematical Ideas** 1———2———3———(4) **Skills and Procedures** 1———2———3———(4) **Mathematical Relationships** 1———2———3———(4) **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1———2———3———(4)

ALGEBRA I — STATISTICS AND PROBABILITY (S)

Interpreting Categorical and Quantitative Data (S-ID)

Interpret linear models.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
S-ID.7 Interpret the slope (rate of change) and the intercept (constant term) of a linear model in the context of the data. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** SPR: 7.1.1, 7.1.2, 7.1.4, 7.2.3	Important Mathematical Ideas 1———2———3———4 Skills and Procedures 1———2———3———4 Mathematical Relationships 1———2———3———4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): In Statistics resource only
	Overall Rating 1———2———3———4

ALGEBRA I — STATISTICS AND PROBABILITY (S)

Interpreting Categorical and Quantitative Data (S-ID)

Interpret linear models.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
S-ID.8 Compute (using technology) and interpret the correlation coefficient of a linear fit. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** SPt: 7.2.2, 7.2.3	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): In stats resource only
	Overall Rating ① 2 3 4

ALGEBRA I — STATISTICS AND PROBABILITY (S)

Interpreting Categorical and Quantitative Data (S-ID)

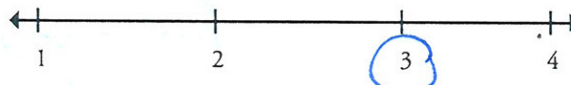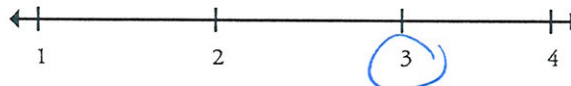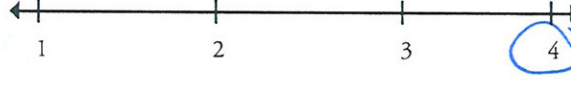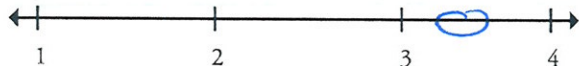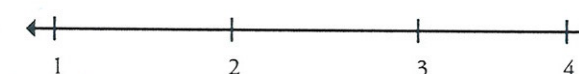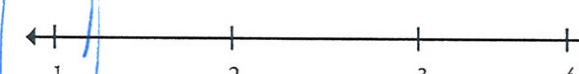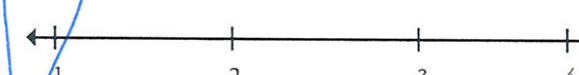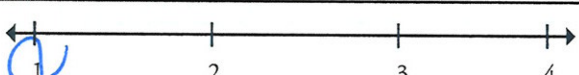| Interpret linear models.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
S-ID.9 Distinguish between correlation and causation. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** SPR: 6.2.1	Important Mathematical Ideas ⟵—1———2———3———4⟶ *(1 circled)* Skills and Procedures ⟵—1———2———3———4⟶ *(1 circled)* Mathematical Relationships ⟵—1———2———3———4⟶ *(1 circled)* **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): In stats resource only
	Overall Rating ⟵—1———2———3———4⟶ *(1 circled)*

Documenting Alignment to the Standards for Mathematical Practice

1. Make sense of problems and persevere in solving them.

Mathematically proficient students start by explaining to themselves the meaning of a problem and looking for entry points to its solution. They analyze givens, constraints, relationships, and goals. They make conjectures about the form and meaning of the solution and plan a solution pathway rather than simply jumping into a solution attempt. They consider analogous problems, and try special cases and simpler forms of the original problem in order to gain insight into its solution. They monitor and evaluate their progress and change course if necessary. Older students might, depending on the context of the problem, transform algebraic expressions or change the viewing window on their graphing calculator to get the information they need. Mathematically proficient students can explain correspondences between equations, verbal descriptions, tables, and graphs or draw diagrams of important features and relationships, graph data, and search for regularity or trends. Younger students might rely on using concrete objects or pictures to help conceptualize and solve a problem. Mathematically proficient students check their answers to problems using a different method, and they continually ask themselves, "Does this make sense?" They can understand the approaches of others to solving complex problems and identify correspondences between different approaches.

Indicate the chapter(s), section(s), or page(s) reviewed.

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

Overall Rating

Documenting Alignment to the
Standards for Mathematical Practice

2. Reason abstractly and quantitatively.

Mathematically proficient students make sense of quantities and their relationships in problem situations. They bring two complementary abilities to bear on problems involving quantitative relationships: the ability to decontextualize—to abstract a given situation and represent it symbolically and manipulate the representing symbols as if they have a life of their own, without necessarily attending to their referents—and the ability to contextualize, to pause as needed during the manipulation process in order to probe into the referents for the symbols involved. Quantitative reasoning entails habits of creating a coherent representation of the problem at hand; considering the units involved; attending to the meaning of quantities, not just how to compute them; and knowing and flexibly using different properties of operations and objects.

Indicate the chapter(s), section(s), or page(s) reviewed.

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

Overall Rating

1   2   3   4

CONTENT STANDARDS RUBRIC
Algebra 1

The Real Number System N -RN
Extend the properties of exponents to rational exponents.
1. Explain how the definition of the meaning of rational exponents follows from extending the properties of integer exponents to those values, allowing for a notation for radicals in terms of rational exponents. *For example, we define 51/3 to be the cube root of 5 because we want (51/3)3 = 5(1/3)3 to hold, so (51/3)3 must equal 5.*
2. Rewrite expressions involving radicals and rational exponents using the properties of exponents.
Use properties of rational and irrational numbers.
3. Explain why the sum or product of two rational numbers is rational; that the sum of a rational number and an irrational number is irrational; and that the product of a nonzero rational number and an irrational number is irrational

	Development				Connections				Rigor and Depth				Overall/Evidence
Mathematical Ideas	Are ideas conceptually developed (4) or approached from a simple skill level (1)?				Are ideas expanded to other math ideas (4) or developed independently of each other (1)?				Do ideas require extension of important ideas and the use of multiple approaches (4) or only using procedures and memorization (1)?				$RN1$ $P - 96$ $RN2$
	4	3	2	1	4	3	2	1	4	3	2	1	
Skills and Procedures	Are skills and procedures integrated with math ideas (4) or are they the primary focus of the lesson (1)?				Are skills and procedures connected to other ideas (4) or treated as isolated skills with no connection (1)?				Are skills and procedures critical to the application of other math ideas (4) or are they practiced without conceptual development (1)?				
	4	3	2	1	4	3	2	1	4	3	2	1	
Mathematical Relationships	Are math relationships evident to build understanding (4) or appear as a series of independent skills (1)?				Are relationships integrated with other math ideas (4) or are problems focusing on drill only(1)?				Do relationships require a broad use of math (4) or only require the use of skills and procedures (1)?				
	4	3	2	1	4	3	2	1	4	3	2	1	
Missing or weak content from this standard					$RN3$ in supplement								

Overall for this Standard: _____

CONTENT STANDARDS RUBRIC
Algebra 1

Quantities N -Q

Reason quantitatively and use units to solve problems. (Foundation work with expressions, equations, and functions)

1. Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.
2. Define appropriate quantities for the purpose of descriptive modeling.
3. Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.

	Development				Connections				Rigor and Depth				Overall/Evidence
Mathematical Ideas	Are ideas conceptually developed (4) or approached from a simple skill level (1)?				Are ideas expanded to other math ideas (4) or developed independently of each other (1)?				Do ideas require extension of important ideas and the use of multiple approaches (4) or only using procedures and memorization (1)?				
	4	3	2	1	4	3	2	1	4	3	2	1	
Skills and Procedures	Are skills and procedures integrated with math ideas (4) or are they the primary focus of the lesson (1)?				Are skills and procedures connected to other ideas (4) or treated as isolated skills with no connection (1)?				Are skills and procedures critical to the application of other math ideas (4) or are they practiced without conceptual development (1)?				
	4	3	2	1	4	3	2	1	4	3	2	1	
Mathematical Relationships	Are math relationships evident to build understanding (4) or appear as a series of independent skills (1)?				Are relationships integrated with other math ideas (4) or are problems focusing on drill only(1)?				Do relationships require a broad use of math (4) or only require the use of skills and procedures (1)?				
	4	3	2	1	4	3	2	1	4	3	2	1	
Missing or weak content from this standard													

Overall for this Standard: _____

Algebra 1

Seeing Structure in Expressions A-SSE
Interpret the structure of expressions
1. Interpret expressions that represent a quantity in terms of its context.

$2/.1 - 2.1.5$

a. Interpret parts of an expression, such as terms, factors, and coefficients.
b. Interpret complicated expressions by viewing one or more of their parts as a single entity. *For example interpret $P(1+r)$ as the product of P and a factor not depending on P.*
2. Use the structure of an expression to identify ways to rewrite it. *For example, see $x_4 - y_4$ as $(x_2)_2 - (y_2)_2$, thus recognizing it as a difference of squares that can be factored as $(x_2 - y_2)(x_2 + y_2)$.*

Write expressions in equivalent forms to solve problems
3. Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression. *

a. Factor a quadratic expression to reveal the zeros of the function it defines.
b. Complete the square in a quadratic expression to reveal the maximum or minimum value of the function it defines.
c. Use the properties of exponents to transform expressions for exponential functions. *For example the expression 1.15_t can be rewritten as $(1.15^{1/12})^{12t} \approx 1.012^{12t}$ to reveal the approximate equivalent monthly interest rate if the annual rate is 15%.*

	Development				Connections				Rigor and Depth				Overall/Evidence
Mathematical Ideas	Are ideas conceptually developed (4) or approached from a simple skill level (1)?				Are ideas expanded to other math ideas (4) or developed independently of each other (1)?				Do ideas require extension of important ideas and the use of multiple approaches (4) or only using procedures and memorization (1)?				
	4	3	2	1	4	3	2	1	4	3	2	1	
Skills and Procedures	Are skills and procedures integrated with math ideas (4) or are they the primary focus of the lesson (1)?				Are skills and procedures connected to other ideas (4) or treated as isolated skills with no connection (1)?				Are skills and procedures critical to the application of other math ideas (4) or are they practiced without conceptual development (1)?				
	4	3	2	1	4	3	2	1	4	3	2	1	
Mathematical Relationships	Are math relationships evident to build understanding (4) or appear as a series of independent skills (1)?				Are relationships integrated with other math ideas (4) or are problems focusing on drill only(1)?				Do relationships require a broad use of math (4) or only require the use of skills and procedures (1)?				
	4	3	2	1	4	3	2	1	4	3	2	1	

Missing or weak content from this standard

Overall for this Standard: ___3___

CONTENT STANDARDS RUBRIC
Algebra 1

Arithmetic with Polynomials and Rational Expressions A -APR **Perform arithmetic operations on polynomials** 1. Understand that polynomials form a system analogous to the integers, namely, they are closed under the operations of addition, subtraction, and multiplication; add, subtract, and multiply polynomials.				

	Development	Connections	Rigor and Depth	Overall/Evidence
Mathematical Ideas	Are ideas conceptually developed (4) or approached from a simple skill level (1)?	Are ideas expanded to other math ideas (4) or developed independently of each other (1)?	Do ideas require extension of important ideas and the use of multiple approaches (4) or only using procedures and memorization (1)?	
	4 3 2 1	4 3 2 1	4 3 2 1	
Skills and Procedures	Are skills and procedures integrated with math ideas (4) or are they the primary focus of the lesson (1)?	Are skills and procedures connected to other ideas (4) or treated as isolated skills with no connection (1)?	Are skills and procedures critical to the application of other math ideas (4) or are they practiced without conceptual development (1)?	
	4 3 2 1	4 3 2 1	4 3 2 1	
Mathematical Relationships	Are math relationships evident to build understanding (4) or appear as a series of independent skills (1)?	Are relationships integrated with other math ideas (4) or are problems focusing on drill only(1)?	Do relationships require a broad use of math (4) or only require the use of skills and procedures (1)?	
	4 3 2 1	4 3 2 1	4 3 2 1	
Missing or weak content from this standard				

Overall for this Standard: _____

CONTENT STANDARDS RUBRIC
Algebra 1

Creating Equations A -CED
Create equations that describe numbers or relationships
1. Create equations and inequalities in one variable and use them to solve problems. *Include equations arising from linear and quadratic functions, and simple rational and exponential functions.*
2. Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.
3. Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or nonviable options in a modeling context. *For example, represent inequalities describing nutritional and cost constraints on combinations of different foods.*
4. Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations. *For example, rearrange Ohm's law $V = IR$ to highlight resistance R.*

	Development				Connections				Rigor and Depth				Overall/Evidence
Mathematical Ideas	Are ideas conceptually developed (4) or approached from a simple skill level (1)?				Are ideas expanded to other math ideas (4) or developed independently of each other (1)?				Do ideas require extension of important ideas and the use of multiple approaches (4) or only using procedures and memorization (1)?				
	4	3	2	1	4	3	2	1	4	3	2	1	
Skills and Procedures	Are skills and procedures integrated with math ideas (4) or are they the primary focus of the lesson (1)?				Are skills and procedures connected to other ideas (4) or treated as isolated skills with no connection (1)?				Are skills and procedures critical to the application of other math ideas (4) or are they practiced without conceptual development (1)?				
	4	3	2	1	4	3	2	1	4	3	2	1	
Mathematical Relationships	Are math relationships evident to build understanding (4) or appear as a series of independent skills (1)?				Are relationships integrated with other math ideas (4) or are problems focusing on drill only(1)?				Do relationships require a broad use of math (4) or only require the use of skills and procedures (1)?				
	4	3	2	1	4	3	2	1	4	3	2	1	

Missing or weak content from this standard

Overall for this Standard: _____

CONTENT STANDARDS RUBRIC
Algebra 1

Reasoning with Equations and Inequalities A -RE I
Understand solving equations as a process of reasoning and explain the reasoning
1. Explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. Construct a viable argument to justify a solution method.
Solve equations and inequalities in one variable
3. Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters.
4. Solve quadratic equations in one variable.
a. Use the method of completing the square to transform any quadratic equation in x into an equation of the form $(x - p)2 = q$ that has the same solutions. Derive the quadratic formula from this form.
b. Solve quadratic equations by inspection (e.g., for $x2 = 49$), taking square roots, completing the square, the quadratic formula and factoring, as appropriate to the initial form of the equation. Recognize when the quadratic formula gives complex solutions and write them as a ☐ } bi for real numbers a and b.

	Development				Connections				Rigor and Depth				Overall/Evidence
Mathematical Ideas	Are ideas conceptually developed (4) or approached from a simple skill level (1)?				Are ideas expanded to other math ideas (4) or developed independently of each other (1)?				Do ideas require extension of important ideas and the use of multiple approaches (4) or only using procedures and memorization (1)?				3 2,1.8~2,1.9 3,2.1~3,2.4
	4	3	2	1	4	3	2	1	4	3	2	1	
Skills and Procedures	Are skills and procedures integrated with math ideas (4) or are they the primary focus of the lesson (1)?				Are skills and procedures connected to other ideas (4) or treated as isolated skills with no connection (1)?				Are skills and procedures critical to the application of other math ideas (4) or are they practiced without conceptual development (1)?				45 & p.432 -433 4, pp 436-447
	4	3	2	1	4	3	2	1	4	3	2	1	
Mathematical Relationships	Are math relationships evident to build understanding (4) or appear as a series of independent skills (1)?				Are relationships integrated with other math ideas (4) or are problems focusing on drill only(1)?				Do relationships require a broad use of math (4) or only require the use of skills and procedures (1)?				
	4	3	2	1	4	3	2	1	4	3	2	1	
Missing or weak content from this standard													

Overall for this Standard: _____

Multiple methods & connections in solving equations. 425-43
424-427

CONTENT STANDARDS RUBRIC
Algebra 1

Reasoning with Equations and Inequalities A -RE I

Solve systems of equations

5. Prove that, given a system of two equations in two variables, replacing one equation by the sum of that equation and a multiple of the other produces a system with the same solutions. 6. Solve systems of linear equations exactly and approximately (e.g., with graphs), focusing on pairs of linear equations in two variables.

7. Solve a simple system consisting of a linear equation and a quadratic equation in two variables algebraically and graphically. *For example, find the points of intersection between the line $y = -3x$ and the circle $x2 + y2 = 3$.*

8. (+) Represent a system of linear equations as a single matrix equation in a vector variable.

9. (+) Find the inverse of a matrix if it exists and use it to solve systems of linear equations (using technology for matrices of dimension 3×3 or greater).

	Development	Connections	Rigor and Depth	Overall/Evidence
Mathematical Ideas	Are ideas conceptually developed (4) or approached from a simple skill level (1)?	Are ideas expanded to other math ideas (4) or developed independently of each other (1)?	Do ideas require extension of important ideas and the use of multiple approaches (4) or only using procedures and memorization (1)?	*Chapter 6*
	4 3 2 1	4 3 2 1	4 3 2 1	
Skills and Procedures	Are skills and procedures integrated with math ideas (4) or are they the primary focus of the lesson (1)?	Are skills and procedures connected to other ideas (4) or treated as isolated skills with no connection (1)?	Are skills and procedures critical to the application of other math ideas (4) or are they practiced without conceptual development (1)?	*REI 7 p. 392*
	4 3 2 1	4 3 2 1	4 3 2 1	
Mathematical Relationships	Are math relationships evident to build understanding (4) or appear as a series of independent skills (1)?	Are relationships integrated with other math ideas (4) or are problems focusing on drill only (1)?	Do relationships require a broad use of math (4) or only require the use of skills and procedures (1)?	
	4 3 2 1	4 3 2 1	4 3 2 1	

Missing or weak content from this standard

Overall for this Standard: ___2___

CONTENT STANDARDS RUBRIC
Algebra 1

Reasoning with Equations and Inequalities A -RE I
Represent and solve equations and inequalities graphically
10. Understand that the graph of an equation in two variables is the set of all its solutions plotted in the coordinate plane, often forming a curve (which could be a line).
11. Explain why the x-coordinates of the points where the graphs of the equations $y = f(x)$ and $y = g(x)$ intersect are the solutions of the equation $f(x) = g(x)$; find the solutions approximately, e.g., using technology to graph the functions, make tables of values, or find successive approximations. Include cases where $f(x)$ and/or $g(x)$ are linear, polynomial, rational, absolute value, exponential, and logarithmic functions.☐
12. Graph the solutions to a linear inequality in two variables as a half-plane (excluding the boundary in the case of a strict inequality), and graph the solution set to a system of linear inequalities in two variables as the intersection of the corresponding half-planes.

	Development				Connections				Rigor and Depth				Overall/Evidence
Mathematical Ideas	Are ideas conceptually developed (4) or approached from a simple skill level (1)?				Are ideas expanded to other math ideas (4) or developed independently of each other (1)?				Do ideas require extension of important ideas and the use of multiple approaches (4) or only using procedures and memorization (1)?				*lo 3-44 -3/1/6 3/10* *12 9.2 ξ 9.0*
	4	3	2	1	4	3	2	1	4	3	2	1	
Skills and Procedures	Are skills and procedures integrated with math ideas (4) or are they the primary focus of the lesson (1)?				Are skills and procedures connected to other ideas (4) or treated as isolated skills with no connection (1)?				Are skills and procedures critical to the application of other math ideas (4) or are they practiced without conceptual development (1)?				
	4	3	2	1	4	3	2	1	4	3	2	1	
Mathematical Relationships	Are math relationships evident to build understanding (4) or appear as a series of independent skills (1)?				Are relationships integrated with other math ideas (4) or are problems focusing on drill only(1)?				Do relationships require a broad use of math (4) or only require the use of skills and procedures (1)?				
	4	3	2	1	4	3	2	1	4	3	2	1	

Missing or weak content from this standard

inequalities / graphs / endpts.

Overall for this Standard: _3_

CONTENT STANDARDS RUBRIC
Algebra 1

Interpreting Functions F-IF
Understand the concept of a function and use function notation
1. Understand that a function from one set (called the domain) to another set (called the range) assigns to each element of the domain exactly one element of the range. If f is a function and x is an element of its domain, then $f(x)$ denotes the output of f corresponding to the input x. The graph of f is the graph of the equation $y = f(x)$.
2. Use function notation, evaluate functions for inputs in their domains, and interpret statements that use function notation in terms of a context.
3. Recognize that sequences are functions, sometimes defined recursively, whose domain is a subset of the integers. *For example, the Fibonacci sequence is defined recursively by $f(0) = f(1) = 1$, $f(n+1) = f(n) + f(n-1)$ for $n \geq 1$.*

	Development				Connections				Rigor and Depth				Overall/Evidence
Mathematical Ideas	Are ideas conceptually developed (4) or approached from a simple skill level (1)?				Are ideas expanded to other math ideas (4) or developed independently of each other (1)?				Do ideas require extension of important ideas and the use of multiple approaches (4) or only using procedures and memorization (1)?				$Ch.4/$
	4	3	2	1	4	3	2	1	4	3	2	1	
Skills and Procedures	Are skills and procedures integrated with math ideas (4) or are they the primary focus of the lesson (1)?				Are skills and procedures connected to other ideas (4) or treated as isolated skills with no connection (1)?				Are skills and procedures critical to the application of other math ideas (4) or are they practiced without conceptual development (1)?				
	4	3	2	1	4	3	2	1	4	3	2	1	
Mathematical Relationships	Are math relationships evident to build understanding (4) or appear as a series of independent skills (1)?				Are relationships integrated with other math ideas (4) or are problems focusing on drill only(1)?				Do relationships require a broad use of math (4) or only require the use of skills and procedures (1)?				
	4	3	2	1	4	3	2	1	4	3	2	1	

Missing or weak content from this standard

Overall for this Standard: _____

CONTENT STANDARDS RUBRIC
Algebra 1

Interpreting Functions F-IF
Interpret functions that arise in applications in terms of the context
4. For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. *Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity.*
5. Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes. *For example, if the function h(n) gives the number of person-hours it takes to assemble n engines in a factory, then the positive integers would be an appropriate domain for the function.*
6. Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph.

	Development				Connections				Rigor and Depth				Overall/Evidence
Mathematical Ideas	Are ideas conceptually developed (4) or approached from a simple skill level (1)?				Are ideas expanded to other math ideas (4) or developed independently of each other (1)?				Do ideas require extension of important ideas and the use of multiple approaches (4) or only using procedures and memorization (1)?				*I-F 4 p. 344*
	4	3	2	1	4	3	2	1	4	3	2	1	
Skills and Procedures	Are skills and procedures integrated with math ideas (4) or are they the primary focus of the lesson (1)?				Are skills and procedures connected to other ideas (4) or treated as isolated skills with no connection (1)?				Are skills and procedures critical to the application of other math ideas (4) or are they practiced without conceptual development (1)?				
	4	3	2	1	4	3	2	1	4	3	2	1	
Mathematical Relationships	Are math relationships evident to build understanding (4) or appear as a series of independent skills (1)?				Are relationships integrated with other math ideas (4) or are problems focusing on drill only(1)?				Do relationships require a broad use of math (4) or only require the use of skills and procedures (1)?				
	4	3	2	1	4	3	2	1	4	3	2	1	
Missing or weak content from this standard													

Overall for this Standard: ___ *✓*

CONTENT STANDARDS RUBRIC
Algebra 1

Interpreting Functions F-IF
Analyze functions using different representations
7. Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases.
a. Graph linear and quadratic functions and show intercepts, maxima, and minima.
b. Graph square root, cube root, and piecewise-defined functions, including step functions and absolute value functions.
e. Graph exponential functions, showing intercepts and end behavior.
8. Write a function defined by an expression in different but equivalent forms to reveal and explain different properties of the function.
a. Use the process of factoring and completing the square in a quadratic function to show zeros, extreme values, and symmetry of the graph, and interpret these in terms of a context.
b. Use the properties of exponents to interpret expressions for exponential functions. *For example, identify percent rate of change in functions such as $y = (1.02)t$, $y = (0.97)t$, $y = (1.01)12t$, $y = (1.2)t/10$, and*
classify them as representing exponential growth or decay.
9. Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). *For example, given a graph of one quadratic function and an algebraic expression for another, say which has the larger maximum.*

	Development				Connections				Rigor and Depth				Overall/Evidence
Mathematical Ideas	Are ideas conceptually developed (4) or approached from a simple skill level (1)?				Are ideas expanded to other math ideas (4) or developed independently of each other (1)?				Do ideas require extension of important ideas and the use of multiple approaches (4) or only using procedures and memorization (1)?				*8 9 p-34/*
	4	3	2	1	4	3	2	1	4	3	2	1	
Skills and Procedures	Are skills and procedures integrated with math ideas (4) or are they the primary focus of the lesson (1)?				Are skills and procedures connected to other ideas (4) or treated as isolated skills with no connection (1)?				Are skills and procedures critical to the application of other math ideas (4) or are they practiced without conceptual development (1)?				
	4	3	2	1	4	3	2	1	4	3	2	1	
Mathematical Relationships	Are math relationships evident to build understanding (4) or appear as a series of independent skills (1)?				Are relationships integrated with other math ideas (4) or are problems focusing on drill only(1)?				Do relationships require a broad use of math (4) or only require the use of skills and procedures (1)?				
	4	3	2	1	4	3	2	1	4	3	2	1	

Missing or weak content from this standard

Exponential in supp

Overall for this Standard: ___3___

CONTENT STANDARDS RUBRIC
Algebra 1

Building Functions F-BF
Build a function that models a relationship between two quantities
1. Write a function that describes a relationship between two quantities.
a. Determine an explicit expression, a recursive process, or steps for calculation from a context.
b. Combine standard function types using arithmetic operations. *For example, build a function that models the temperature of a cooling body by adding a constant function to a decaying exponential, and relate these functions to the model.*
c. (+) Compose functions. *For example, if T(y) is the temperature in the atmosphere as a function of height, and h(t) is the height of a weather balloon as a function of time, then T(h(t)) is the temperature at the location of the weather balloon as a function of time.*
2. Write arithmetic and geometric sequences both recursively and with an explicit formula, use them to model situations, and translate between the two forms.

	Development				Connections				Rigor and Depth				Overall/Evidence
Mathematical Ideas	Are ideas conceptually developed (4) or approached from a simple skill level (1)?				Are ideas expanded to other math ideas (4) or developed independently of each other (1)?				Do ideas require extension of important ideas and the use of multiple approaches (4) or only using procedures and memorization (1)?				
	4	3	2	1	4	3	2	1	4	3	2	1	
Skills and Procedures	Are skills and procedures integrated with math ideas (4) or are they the primary focus of the lesson (1)?				Are skills and procedures connected to other ideas (4) or treated as isolated skills with no connection (1)?				Are skills and procedures critical to the application of other math ideas (4) or are they practiced without conceptual development (1)?				
	4	3	2	1	4	3	2	1	4	3	2	1	
Mathematical Relationships	Are math relationships evident to build understanding (4) or appear as a series of independent skills (1)?				Are relationships integrated with other math ideas (4) or are problems focusing on drill only(1)?				Do relationships require a broad use of math (4) or only require the use of skills and procedures (1)?				
	4	3	2	1	4	3	2	1	4	3	2	1	

Missing or weak content from this standard

Overall for this Standard: _____